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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,122	07/08/2002	Giesbert Richard	P6767OUSO	7169

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EXAMINER	
GUCKER, STEPHEN	
ART UNIT	**PAPER NUMBER**
1649	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/069,122	RICHARD ET AL.	
	Examiner	Art Unit	
	Stephen Gucker	1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 November 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *19-24,27-40* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18,25 and 26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/10/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election with traverse of Group I, claims 1-18 and 25-26 in the reply filed on 11/3/05 is acknowledged, along with the election of the translation product of Cystatin C gene. The traversal of the election of species is on the ground(s) that the "substance" Markush group is properly generic. This is not found persuasive because the substances recited in claims 1-4, 16, 22, 28-30, 34, 36, and 38-39 are distinct chemical compounds lacking either a common structural property which distinguishes them as a group from structurally related compounds of the prior art or which provides them with a common utility which is lacking from those prior art chemicals. In other words, the Markush group is improper because the members of the group do not share either a common core structure or a common core function. Claims 19-24 and 27-40 are therefore withdrawn as belonging to a non-elected invention.

The requirement is still deemed proper and is therefore made FINAL.

2. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 25-26 provide for the use of a kit, but since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is

intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claims 25-26 are rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

5. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth below. No CRF has been submitted, no paper copy of the Sequence Listing has been submitted, and no unique Sequence Identifiers (i.e. SEQ ID NOs) have been submitted for the nucleotide sequences found on pages 30 and 36 of the instant specification.

Applicant is given THREE MONTH from the mailing date of this letter within which to comply with the sequence rules, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). In no case may an applicant extend the period for reply beyond the SIX MONTH statutory period. Direct the reply to the undersigned.

6. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification teaches that patients who suffer from exudative age-related macular degeneration (AMD), the incidence of a CST3 B/B homozygotic genotype is 6.6%, while the incidence of the same genotype for age-matched control patients is 2.2% (see page 32 and Table 2 of the instant specification). The CST3 B/B homozygote genotype was found in the Cystatin C gene. While this is an interesting statistical finding between groups, it requires further research and investigation to determine the significance and meaning of this genetic difference in order to proceed to a patentable invention. The claims have been restricted and are currently directed to a method for diagnosing, prognosticating, monitoring, or evaluating, whether a patient is at risk or will develop AMD, or following the progression of AMD, or evaluating a treatment of AMD, by determining the level of a translation product of a Cystatin C gene, which not only includes determining the level or amount of cystatin C protein (a known inhibitor from the cystatin superfamily of cysteine protease inhibitors, see Abrahamson et al., PTO-1449 submitted 7/10/02), but also all other proteins which may be encoded by the Cystatin C gene, including allelic variants, single nucleotide polymorphisms (SNPs), alternate splice variants of the cystatin C protein, fragments of all of the above, and structurally and/or functionally completely unrelated proteins to the enzyme inhibitor cystatin C that can be produced by alternate methods of translation of the Cystatin C

gene into an encoded protein (frame-shifts, internal rearrangements, etc.) in a patient with or being treated for AMD and a reference value representing a known disease or health status. However, the specification does not provide an adequate written description, guidance, or examples by which the broad claims can be sufficiently supported for enablement for the following reasons. The specification provides no adequate description, guidance, or examples of any levels or amounts of Cystatin C gene products in either an AMD patient or a healthy individual. The tiny subgroup of patients with AMD that possessed the CST3 B/B homozygotic genotype (i.e. not all CST3 B/B homozygotes developed AMD, in fact, only 6.6% did) were not investigated further to determine if any amount or level of translation products of the Cystatin C gene were altered, either up or down, in any way, shape, or fashion. The tiny subgroup of control individuals that possessed the CST3 B/B homozygotic genotype (only 2.2%) were also not investigated further to determine what amount or level of translation products were present in them for any Cystatin C gene translation products. It is entirely unpredictable without forcing undue experimentation to be performed why some CST3 B/B homozygotes are more likely to develop AMD from looking at the amounts of any and all unspecified Cystatin C gene translation products because the skilled artisan does not know which encoded protein product from the Cystatin gene C is to be measured, where it is to be measured (extracellular secretion? intracellular concentration?), and the fact that CST3 B/B homozygotes have a slighter greater tendency to develop AMD (11 out of 167 patients as compared to 6 out of 268 for the control group) cannot be predictably demonstrated to be related to the level or amount

of any translation product because no such translation product was ever measured. Although the genetic difference between the two groups can be shown to be related to a random occurrence only about 2% of the time (p=.0228), the absolute degree of the difference is not large enough that it would be valid to use the CST3 B/B homozygotic genotype as a diagnostic test for AMD, because, at best, more than 93% of the population with the asserted genetic marker of the instant invention will have been shown by the instant data to NOT HAVE AMD. Because the CST3 B/B homozygote genotype is only associated with a 6.6% incidence (11 out of 156) of AMD as compared with a 2.2% incidence (6 out of 262) in the control group, the instant methods are not enabled as an assay or evaluation method because the CST3 B/B homozygote genetic "marker" is only associated with an absolute 4.4% increase in disease incidence. No skilled artisan would accept as a method of diagnosing, prognosticating, monitoring, or evaluating any assay that only increased the overall likelihood of getting AMD by 4.4% because the absolute difference between the two groups is too low. The instant invention therefore requires further research and experimentation to place it into the hands of the public as claimed.

7. No claim is allowed.

8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technical Center 1600 general number which is (571) 272-1600.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen Gucker whose telephone number is (571) 272-

0883. The examiner can normally be reached on Monday to Friday from 0930 to 1800. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Andres, can be reached at (571) 272-0867. The fax phone number for this Group is currently (571)-273-8300.

Stephen Gucker

March 20, 2006

JANET L. ANDRES
SUPERVISORY PATENT EXAMINER